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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HENNING, MATTHEW T

ART UNIT

PAPER NUMBER

2131

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/913,595	Applicant(s) SASAMOTO ET AL.	
	Examiner Matthew T. Henning	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/16/01 3/17/06</u> . | 6) <input type="checkbox"/> Other: _____ |

1 This action is in response to the communication filed on 3/17/2006.

2 **DETAILED ACTION**

3 ***Response to Arguments***

4 Applicants' arguments filed 3/17/2006 have been fully considered but they are not
5 persuasive. Applicants' argue primarily that:

- 6 a. Chou's keys are not apparatus specific.
- 7 b. Chou's keys are noise sample and DVD specific.
- 8 c. Chou's DK_A does not have roots in an apparatus.

9 Regarding applicants' argument a., that Chou's keys are not "apparatus specific", the
10 examiner does not find the argument persuasive. The examiner draws the applicants' attention to
11 the American Heritage College Dictionary page 1330 which defines "specific" as "4a Intended
12 for, applying to, or acting on a particular thing". By this definition, "apparatus specific" means
13 that the key is intended for, applying to, or acting on a particular apparatus. Chou, in Col. 6
14 Lines 25-33, discloses that DK_A is used by the transponder to derive a key to decrypt stored data.
15 As such, DK_A is intended for the transponder, and therefore meets the limitation of apparatus
16 specific. Therefore, the examiner does not find the argument persuasive.

17 Regarding applicants' argument b., that Chou's keys are noise sample and DVD specific,
18 the examiner does not find the argument persuasive. It is noted that the features upon which
19 applicant relies (i.e., the keys not being noise sample or DVD specific) are not recited in the
20 rejected claim(s). Although the claims are interpreted in light of the specification, limitations
21 from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26
22 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, there is no reason why a key cannot be both DVD

Art Unit: 2131

1 and transponder specific, especially since the transponder is located in the DVD. As such, the
2 examiner does not find the argument persuasive.

3 Regarding applicants' argument c., that Chou's DK_A does not have roots in an apparatus,
4 the examiner does not find the argument persuasive. In response to applicant's argument that the
5 references fail to show certain features of applicant's invention, it is noted that the features upon
6 which applicant relies (i.e., the first key having roots in an apparatus) are not recited in the
7 rejected claim(s). Although the claims are interpreted in light of the specification, limitations
8 from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26
9 USPQ2d 1057 (Fed. Cir. 1993). As such, the examiner does not find the argument persuasive.

10 Because the applicants' arguments have not been found persuasive, the examiner has
11 maintained the prior art rejections of the unamended claims.

12 Claims 1-18 have been examined and 19-46 have been cancelled.

13 All objections and rejections not set forth below have been withdrawn.

14 ***Claim Rejections - 35 USC § 103***

15 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
16 obviousness rejections set forth in this Office action:

17 *A patent may not be obtained though the invention is not identically disclosed or*
18 *described as set forth in section 102 of this title, if the differences between the subject matter*
19 *sought to be patented and the prior art are such that the subject matter as a whole would have*
20 *been obvious at the time the invention was made to a person having ordinary skill in the art to*
21 *which said subject matter pertains. Patentability shall not be negatived by the manner in which*
22 *the invention was made.*
23

Art Unit: 2131

1 Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (US
2 Patent Number 6,167,136), and further in view of Wonfor et al. (US Patent Number 6,381,747)
3 hereinafter referred to as Wonfor

4 Regarding claim 1, Chou disclosed a digital signal recorder for recording a digital signal
5 on a recording medium (See Chou Abstract), comprising: first key information generation unit to
6 generate at least one item of first key information which is apparatus specific key information
7 (See Chou Col. 6 Lines 34-38 DK_A); second key information generation unit to generate at least
8 one item of second key information (See Chou Col. 6 Lines 39-43 and Col. 7 Paragraph 1; i);
9 key generation unit which receives said both of said first and second key information generated
10 by said first key information generation unit and said second key information generation unit and
11 performs a prescribed arithmetic operation thereon to generate a key (See Chou Col. 6 Lines 44-
12 58); an encryption circuit which receives said key and said digital signal and encrypts said digital
13 signal with said key (See Chou Col. 6 Lines 59-65), and outputs the resulting encrypted digital
14 signal in a case where said digital signal needs copy protection (See Chou Col. 6 Lines 59-65);
15 and a recording circuit which records at least one of said at least one item of second key
16 information generated by said second key information generation unit, together with said
17 encrypted digital signal in a case where said digital signal needs copy protection (See Chou Col.
18 6 Line 66 – Col. 7 Line 5), but failed to disclose recording said digital signal without encryption
19 in a case where said digital signal needs no copy protection.

20 Wonfor teaches that not all data needs to be copy protected and teaches a system that
21 turns off copy protection when it is not needed (See Wonfor Col. 2 Line 66 – Col. 3 Line 7 and
22 Col. 12 Table 2).

Art Unit: 2131

1 It would have been obvious to the ordinary person skilled in the art at the time of
2 invention to employ the teachings of Wonfor in the copy protection system of Chou by only
3 scrambling the data that needed copy protection and not scrambling the data that didn't need
4 copy protection. This would have been obvious because the ordinary person would have been
5 motivated to prevent unnecessary processing to copy protect data that did not need it.

6 Regarding claim 2, Chou and Wonfer disclosed that said second key information
7 generation unit generates said second key information by using a random number generator (See
8 Chou Col. 7 Paragraph 1), and said digital signal has a packet format of a prescribed length (See
9 Chou Col. 6 Lines 17-23).

10 Regarding claim 3, Chou and Wonfer disclosed that said second key information
11 generation unit generates said second key information by using a random number generator (See
12 Chou Col. 7 Paragraph 1), the second key information generation unit has a function for updating
13 said at least one item of said second key information at a prescribed time interval (See Chou Col.
14 5 Lines 34-39, Col. 6 Lines 59-61 and 7 Lines 2-5); and said recording circuit has a function for
15 recording information capable of identifying timing when said second key information
16 generation unit updates said key information (See Chou Col. 5 Lines 43-48).

17 Regarding claim 4, Chou and Wonfer disclosed that said digital signal has a packet
18 format of a prescribed length (See Chou Col. 5 Lines 34-39); and said recording circuit has a
19 function for adding identifying information capable of identifying timing where said second key
20 information generation unit updates said second key information, and where said identifying
21 information is added to packets of said digital signal and recorded on said recording medium
22 (See Chou Col. 5 Paragraph 4 and Col. 6 Paragraph 5 and Col. 7 Paragraph 1).

Art Unit: 2131

1 Regarding claim 5, Chou and Wonfer disclosed that said second key information
2 generation unit generates said second key information by using a random number generator (See
3 Chou Col. 7 Paragraph 1), said encryption circuit has a function capable of selecting between a
4 first function for encrypting and outputting said digital signal, and a second function for
5 outputting said digital signal as is without encryption (See the rejection of claim 1 above); and
6 said recording circuit has a function for recording, in a prescribed area on said recording
7 medium, encryption flag information indicating whether or not said digital signal is encrypted,
8 and, when not encrypted, not recording said second key information (See Wonfor Col. 8 Lines
9 17-23 and Table 2).

10 Regarding claim 6, Chou and Wonfer disclosed that said digital signal has a packet
11 format of a prescribed length (See Chou Col. 5 Lines 34-39); and said recording circuit has a
12 function for adding encryption flag information indicating whether or not said digital signal is
13 encrypted, to packets of said digital signal, and a function for recording on said recording
14 medium (See Wonfor Col. 8 Lines 17-23 and Table 2).

15 Claims 7-12, and 14-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over
16 the combination of Chou and Wonfor, as applied to claim 1 above, and further in view of Kim
17 (US Patent Number 6,466,733).

18 Regarding claim 7, the combination of Chou and Wonfer disclosed a digital signal
19 recorder in which a digital signal of a packet format of a prescribed length is input comprising:
20 first key information generation unit to generate at least one item of first key information which
21 is apparatus specific key information; second key information generation unit to generate at least
22 one item of second key information; key generation unit to receive both of said first and second

Art Unit: 2131

1 key information generated by said first key information generation unit and said second key
2 information generation unit, and perform a prescribed arithmetic operation to generate a key; an
3 encryption circuit which receives said key and said digital signal, encrypts said digital signal
4 with said key and outputs the resulting encrypted digital signal in a case where said digital signal
5 needs copy protection; and a recording circuit which records at least one of said at least one item
6 of second key information generated by said second key information generation unit, together
7 with said encrypted digital signal in a case where said digital signal needs copy protection, and
8 records said digital signal without encryption in a case where said digital signal needs no copy
9 protection (See rejection of claims 1-2 above), but failed to disclose dividing the signal into other
10 prescribed lengths; a synchronization signal, recording information signal, auxiliary information
11 signal, and first error correction code are added thereto to define a block format; one track is
12 formed by a prescribed number of blocks thus made; a second error correction code is added in
13 units of n tracks (where n is an integer 1 or greater); said second error correction code is also
14 divided and said first error correction code is added thereto to constitute a block format; and said
15 tracks are recorded on said recording medium.

16 Kim teaches a method for recording a digital transport stream by creating tracks from
17 video packets and providing three error correction codes to each track (See Kim Figs. 2, 3, and 5
18 and Col. 6 Paragraphs 4-7 and Col. 7 Paragraphs 3-4).

19 It would have been obvious to the ordinary person skilled in the art at the time of
20 invention to employ the teachings of Kim in the recorder of Chou and Wonfer by storing the
21 encrypted packets in the ECC block format of Kim. This would have been obvious because the

1 ordinary person skilled in the art would have been motivated to protect the stored programs
2 against errors.

3 Regarding claim 8, see the rejection of claim 1 above wherein it would have been
4 obvious to store the frame identification number in an auxiliary storage area because the frame
5 identification number is auxiliary data.

6 Regarding claim 9, see the rejection of claim 3 above.

7 Regarding claim 10, Chou, Wonfer, and Kim disclosed that timing information was
8 included in the stored block data (see Kim Col. 5 Paragraph 6).

9 Regarding claim 11, Chou, Wonfer, and Kim disclosed that timing information was
10 stored in an auxiliary section (See Kim Col. 6 Paragraph 4 and Col. 7 Paragraph 3).

11 Regarding claim 12, Chou, Wonfer, and Kim disclosed adding timing information to the
12 blocks identifying the timing of the packets (See Kim Col. 2 Lines 54-57)

13 Regarding claim 13, Chou, Wonfer, and Kim disclosed that the frame identification
14 number was updated every frame and there was at least one frame per track (See Chou Col. 5
15 Paragraph 4). Therefore, the frame identification number was updated for every track.

16 Regarding claim 14, see the rejection of claim 7 above.

17 Regarding claim 15-17, see the rejection of claims 5-6 above.

18 Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination
19 of Chou, Wonfor, and Kim, as applied to claim 14 above, and further in view of Yuval et al. (US
20 Patent Number 5,586,186) hereinafter referred to as Yuval.

Yuval teaches that for efficiency, only every nth track should be encrypted (See Yuval Col. 6 Lines 13-23).

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Yuval in the copy protection system of Chou, Wonfor, and Kim by encrypting every n th track. This would have been obvious because the ordinary person skilled in the art would have been motivated to make the copy protection system more efficient in both the encryption and decryption.

Conclusion

Claims 1-18 have been rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

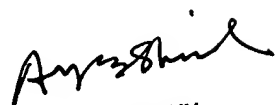
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew T. Henning whose telephone number is (571) 272-3790. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Matthew Henning
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